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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,816	04/30/2001	Jacob McGuire	PA3941US	9954

7590  
JACOB MCGUIRE  
5091 DOYL ROAD  
SAN JOSE, CA 95129

EXAMINER
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AILES, BENJAMIN A

ART UNIT	PAPER NUMBER
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2142

MAIL DATE	DELIVERY MODE
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04/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/843,816	<b>Applicant(s)</b> MCGUIRE, JACOB	
	<b>Examiner</b> BENJAMIN A. AILES	<b>Art Unit</b> 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 January 2008 has been entered.

2. Claims 1-8, 10-18 and 20-23 remain pending.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-8, 10, 11 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claim 1 recites subject matter that is understood as being software per se. The "uniform interface" as recited in line 1 of the claim is not claimed as being embodied on a tangible computer readable medium consistent with the specification and therefore is deemed non-statutory. Dependent claims 2-8, 10, 11 and 23 which depend upon independent claim 1 are rejected under the same rationale.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant et al. (US 2002/0128815 A1), hereinafter referred to as Merchant, in view of Alonso et al. (US 6,434,700 B1), hereinafter referred to as Alonso.

8. Regarding claim 1, Merchant teaches a uniform interface for configuring and managing a plurality of different types of network devices, comprising:

a library containing generic commands that can be applied to said network devices (page 2, paragraph 0028, lines 3-10; Merchant teaches storage of device independent commands and device specific commands.);

a plurality of plug-in modules that can register with said library, each of said modules operating to convert at least some of said generic commands into device-specific commands and transmit said device-specific commands to remote individual devices of a type that are associated with the module (p. 3, para. 0044; Merchant teaches device-independent modules that translate device related independent commands into device specific commands.).

Merchant teaches the creation of generic commands (para. 0044) but does not clearly teach the “generic command that puts a device into its most privileged level through an established connection to the device.” However, in related art, Alonso teaches the placing of a device in a most privileged level in a similar environment wherein messages are utilized to authorize user access to certain devices (col. 5, line 66 – col. 6, line 15). One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant with the teachings of Alonso. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Alonso to provide authorization for users, and different types of users like network managers, to different types of network devices like routers and firewalls (col. 6, ll. 6-15).

9. Regarding claim 2, Merchant and Alonso teach the use of a communications network but do not explicitly detail “plug-in modules transmit each of said commands in accordance with a transmission protocol specific to the individual devices, respectively” and further “wherein one of said transmission protocols comprises Telnet”. However, Official Notice is taken that the use of specific transmission protocols, including Telnet,

was old and well known in the art. It would have been obvious to one of ordinary skill at the time of the applicant's invention to utilize a specific transmission protocol, for example Telnet, in order for network communication to be possible.

10. Regarding claim 3, Merchant and Alonso teach the use of a communications network but do not explicitly detail "plug-in modules transmit each of said commands in accordance with a transmission protocol specific to the individual devices, respectively" and further "wherein one of said transmission protocols comprises Telnet". However, Official Notice is taken that the use of specific transmission protocols, including Telnet, was old and well known in the art. It would have been obvious to one of ordinary skill at the time of the applicant's invention to utilize a specific transmission protocol, for example Telnet, in order for network communication to be possible.

11. Regarding claim 4, Merchant and Alonso teach the system wherein another one of said generic commands establishes a connection to a network device through which configuration commands can be sent and information can be retrieved (Merchant, p. 2, para. 29 and para. 31; Merchant teaches the sending of configuration signals and the querying for configuration information.).

12. Regarding claim 10, Merchant and Alonso teach the system wherein said library is responsive to the receipt of a command for a given device to determine the module that corresponds to said given device and provide the received command to said module (Merchant, p. 3, para. 0044).

13. Regarding claim 11, Merchant and Alonso teach the system wherein said modules convert responses received from the individual devices with which they are

associated into a generic format for presentation to said library (Merchant, p. 4, para. 0046).

14. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant and Alonso and further in view of Tindal (US 7,246,162).

15. Regarding claim 5, Merchant and Alonso teach the system as claimed in claim 1 but do not clearly recite one of the generic commands retrieving the current configuration of a network device by executing appropriate commands on the device. Tindal teaches the retrieval of configurations using messaging for configuring and reconfiguring purposes (col. 4, line 59 - col. 5, line 8). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to combine the teachings of Tindal with Merchant and Alonso. One of ordinary skill in the art would have been motivated to make such a combination as suggested by Merchant to query and receive current configurations of devices (p. 2, para. 0031) and Tindal to configure and reconfigure devices (col. 5, ll. 1-5).

16. Regarding claim 8, Merchant and Alonso teach the system as claimed in claim 1 including the creation of generic commands (para. 0044) but does not clearly teach the step "wherein one of said generic commands gives a device a complete configuration based on information from a stored configuration file". However, in related art, Tindal teaches the retrieval of configurations using messaging for configuring and reconfiguring purposes (col. 4, line 59 - col. 5, line 8). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to combine the teachings of Tindal with Merchant and Alonso. One of ordinary skill in the art would

have been motivated to make such a combination as suggested by Merchant to query and receive current configurations of devices (p. 2, para. 0031) and Tindal to configure and reconfigure devices (col. 5, ll. 1-5).

17. Claims 6, 7 and 23 are rejected under 35 USC 103(a) as being unpatentable over Merchant and Alonso in view of Rangachar (US 6,301,252 B1).

18. Regarding claim 6, Merchant and Alonso teach the system as claimed in claim 1 including the querying of configuration information with respect to the network device that is queried (Merchant, para. 0032) but does not clearly teach the step to “render configuration information suitable for storage and saves it to a local file system”.

However, in related art, Rangachar teaches in a similar environment wherein generic commands are utilized and translated into a device specific command a generic command can be created which retrieves the configuration information with respect to a network device and this information is stored in a centralized control and management storage wherein the centralized control and management location stores the “state” of the network device (col. 7, ll. 5-22). One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant and Alonso with the teachings of Rangachar. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Rangachar to within a system wherein generic commands are utilized, it is beneficial to further enhance network reliability and interoperability of switches and have further control over network switches (col. 4, ll. 18-24).



19. Regarding claim 7, Merchant and Alonso teach the system as claimed in claim 1 including the creation of generic commands (Alonso, para. 0044) but do not clearly teach the step to “put a device into a mode where it can accept configuration commands through an established connection at an enabled level”. However, in related art, Rangachar teaches in a similar environment wherein generic commands are utilized and translated into a device specific command a generic command can be created which can control and make modifications to a network switch. Rangachar teaches the controlling and management of network switches (col. 4, ll. 58-62. One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant and Alonso with the teachings of Rangachar. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Rangachar to within a system wherein generic commands are utilized, it is beneficial to further enhance network reliability and interoperability of switches and have further control over network switches (col. 4, ll. 18-24).

20. Regarding claim 23, Merchant teaches the utilization of network devices but does not explicitly teach the network devices being from a group consisting of switches, firewalls, routers and load balancers. However, in related art, Rangachar teaches the management of network switches (col. 4, ll. 5-11). One of ordinary skill in the art would have found it obvious to utilize the teachings of Merchant for the control of different network devices like switches, firewalls, routers and load balancers. One of ordinary skill would have been motivated because these are common network devices as taught by Rangachar.

21. Claim 12-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant in view of Tindal (US 7,246,162).

22. Regarding claim 12, Merchant discloses a uniform interface for configuring and managing a plurality of different types of network devices, comprising:

a library containing generic commands that can be applied to said network devices (page 2, paragraph 0028, lines 3-10; Merchant teaches storage of device independent commands and device specific commands.);

a plurality of plug-in modules that can register with said library, each of said modules operating to convert at least some of said generic commands into device-specific commands and transmit said device-specific commands to remote individual devices of a type that are associated with the module (p. 3, para. 0044; Merchant teaches device-independent modules that translate device related independent commands into device specific commands.).

Merchant teaches the system as claimed in claim 1 but do not clearly recite one of the generic commands retrieving the complete configuration of a network device by executing appropriate commands on the device. Tindal teaches the retrieval of configurations using messaging for configuring and reconfiguring purposes (col. 4, line 59 - col. 5, line 8). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to combine the teachings of Tindal with Merchant. One of ordinary skill in the art would have been motivated to make such a combination as suggested by Merchant to query and receive current configurations of devices (p. 2, para. 0031) and Tindal to configure and reconfigure devices (col. 5, ll. 1-5).

23. Regarding claim 13, Merchant and Tindal teach the use of a communications network but does not explicitly detail “plug-in modules transmit each of said commands in accordance with a transmission protocol specific to the individual devices, respectively” and further “wherein one of said transmission protocols comprises Telnet”. However, Official Notice is taken that the use of specific transmission protocols, including Telnet, was old and well known in the art. It would have been obvious to one of ordinary skill at the time of the applicant’s invention to utilize a specific transmission protocol, for example Telnet, in order for network communication to be possible.

24. Regarding claim 14, Merchant and Tindal teach the use of a communications network but does not explicitly detail “plug-in modules transmit each of said commands in accordance with a transmission protocol specific to the individual devices, respectively” and further “wherein one of said transmission protocols comprises Telnet”. However, Official Notice is taken that the use of specific transmission protocols, including Telnet, was old and well known in the art. It would have been obvious to one of ordinary skill at the time of the applicant’s invention to utilize a specific transmission protocol, for example Telnet, in order for network communication to be possible.

25. Regarding claim 15, Merchant and Tindal teach the system wherein one of said generic commands establishes a connection to a network device through which configuration commands can be sent and information can be retrieved (Merchant, p. 2, para. 29 and para. 31; Merchant teaches the sending of configuration signals and the querying for configuration information.).

26. Regarding claim 16, Merchant teaches the system as claimed in claim 1 but does not clearly recite one of the generic commands retrieving the current configuration of a network device by executing appropriate commands on the device. Tindal teaches the retrieval of configurations using messaging for configuring and reconfiguring purposes (col. 4, line 59 - col. 5, line 8). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to combine the teachings of Tindal with Merchant. One of ordinary skill in the art would have been motivated to make such a combination as suggested by Merchant to query and receive current configurations of devices (p. 2, para. 0031) and Tindal to configure and reconfigure devices (col. 5, ll. 1-5).

27. Regarding claim 21, Merchant and Tindal teach the method wherein said modules convert responses received from the individual devices with which they are associated into a generic format for presentation to said library (p. 4, para. 0046).

28. Claims 17, 18 and 22 are rejected under 35 USC 103(a) as being unpatentable over Merchant and Tindal in view of Rangachar (US 6,301,252 B1).

29. Regarding claim 17, Merchant and Tindal teach the method as claimed in claim 12 including the querying of configuration information with respect to the network device that is queried (Merchant, para. 0032) but do not clearly teach the step to "render configuration information suitable for storage and saves it to a local file system". However, in related art, Rangachar teaches in a similar environment wherein generic commands are utilized and translated into a device specific command a generic command can be created which retrieves the configuration information with respect to a

network device and this information is stored in a centralized control and management storage wherein the centralized control and management location stores the “state” of the network device (col. 7, ll. 5-22). One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant with the teachings of Rangachar. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Rangachar to within a system wherein generic commands are utilized, it is beneficial to further enhance network reliability and interoperability of switches and have further control over network switches (col. 4, ll. 18-24).

30. Regarding claim 18, Merchant and Tindal teach the method as claimed in claim 12 including the creation of generic commands (Merchant, para. 0044) but do not clearly teach the step to “put a device into a mode where it can accept configuration commands through an established connection at an enabled level”. However, in related art, Rangachar teaches in a similar environment wherein generic commands are utilized and translated into a device specific command a generic command can be created which can control and make modifications to a network switch. Rangachar teaches the controlling and management of network switches (col. 4, ll. 58-62. One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant and Tindal with the teachings of Rangachar. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Rangachar to within a system wherein generic commands are utilized, it is beneficial to

further enhance network reliability and interoperability of switches and have further control over network switches (col. 4, ll. 18-24).

31. Regarding claim 22, Merchant teaches the utilization of network devices but does not explicitly teach the network devices being from a group consisting of switches, firewalls, routers and load balancers. However, in related art, Rangachar teaches the management of network switches (col. 4, ll. 5-11). One of ordinary skill in the art would have found it obvious to utilize the teachings of Merchant for the control of different network devices like switches, firewalls, routers and load balancers. One of ordinary skill would have been motivated because these are common network devices as taught by Rangachar.

32. Claim 20 is rejected under 35 USC 103(a) as being unpatentable over Merchant and Tindal in view of Alonso.

Regarding claim 20, Merchant teaches the creation of generic commands (para. 0044) but does not clearly teach the “generic command that puts a device into its most privileged level through an established connection to the device.” However, in related art, Alonso teaches the placing of a device in a most privileged level in a similar environment wherein messages are utilized to authorize user access to certain devices (col. 5, line 66 – col. 6, line 15). One of ordinary skill in the art at the time of the applicant’s invention would have found it obvious to combine the teachings of Merchant with the teachings of Alonso. One of ordinary skill would have been motivated to make such a combination wherein it is taught by Alonso to provide authorization for users, and

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different types of users like network managers, to different types of network devices like routers and firewalls (col. 6, ll. 6-15).

***Response to Arguments***

33. Applicant's arguments, see Remarks, filed 23 January 2008, with respect to the rejection(s) of claim(s) 1, 4, 10-12, 15 and 21 under 35 USC 102 and claims 2, 3, 5, 13, 14 and 16 under 35 USC 103 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Merchant et al. (US 2002/0128815 A1), Alonso et al. (US 6,434,700 B1), Tindal (US 7,246,162) and Rangachar (US 6,301,252 B1).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on Monday-Thursday 6AM-10PM in accordance with IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

baa

/Andrew Caldwell/  
Supervisory Patent Examiner, Art Unit 2142